

Amendments to the Specification

Please replace the first paragraph of the Summary of the invention, which begins on line 18 of page 3 with the following:

The invention includes head arms providing head slider electrical interconnection as two or more essentially ~~eoplaner~~ coplanar, parallel trace pairs near a ground plane to a disk drive read and write interface. These parallel traces use the metallic body of the head arm as a ground plane, insuring that the neighboring pairs of parallel traces used for differential read and write interconnection have essentially matched impedance. This is done through the uniform distance between traces and the uniform height of the traces from the ground plane of the head arm, creating matched impedance line pairs and significantly reducing crosstalk.

Please replace the first two paragraphs of page 6 with the following:

Figure 3B illustrates a cross sectional view of three head arms 150, 152 and 154 through line A-B of Figure 3A. Each head arm contains at least two differential signal pairs through traces 174, 176, 178 and 180, which are ~~eoplaner~~ coplanar, parallel and close to ground planes provided by the metallic infrastructure of each head arm. Note that head arm 152 also includes third and fourth differential signal pairs through traces 182-188, again essentially ~~eoplaner~~ coplanar, parallel and close to the ground plane of head arm 152.

The head arms 150-154 provide head slider electrical interconnection as two or more essentially ~~eoplaner~~ coplanar, parallel trace pairs 174, 176, 178 and 180 near a ground plane to a disk drive read and write interface. By using the metallic body of the head arm as a ground plane, these parallel trace pairs 174, 176, 178 and 180 insure that parallel trace pairs used for differential read and write

interconnection have essentially matched impedance. This is done through the uniform distance between traces and the uniform height of the traces from the ground plane of the head arm, creating matched impedance line pairs and significantly reducing crosstalk.

Please replace the first paragraph of page 7 with the following:

Note that an additional parallel, ~~eoplano~~ coplanar trace tied to ground may be placed between trace pairs to further minimize crosstalk.

Please replace the four paragraphs of page 8 starting at line 7 with the following:

In Figures 4A and 4B, each of the head arms 150, 152, and 154 provides at least one ground plane formed in said head arm by its metallic body. Each of the head arms 150, 152, and 154 includes a first pair of ~~eoplano~~ coplanar, parallel transmission paths 174 and 176 as well as, a second pair of ~~eoplano~~ coplanar, parallel transmission paths 178 and 180 essentially parallel to said ground plane.

In Figures 4A and 4B, the head arm 150 interconnects the first pair of ~~eoplano~~ coplanar, parallel transmission paths 174 and 176 by a read differential wire pair 300 and 302 to a head slider 60, and to a disk drive read interface 200. The head arm 150 interconnects the second pair of ~~eoplano~~ coplanar, parallel transmission paths 178 and 180 by a write differential wire pair 350 and 352 to a head slider 60 and to a disk drive write interface 250.

In Figure 4B, the second head arm 152 interconnects the first pair of ~~eoplano~~ coplanar, parallel transmission paths 174 and 176 by a read differential wire pair to a head slider 62, and to a disk drive read interface 202. The head arm 152 interconnects the second pair of ~~eoplano~~ coplanar, parallel transmission paths 178 and 180 by a write differential wire pair to a head slider 60 and to a disk drive write interface 252.

In Figure 4B, the first head arm 152 also includes a third ~~eoplano~~ coplanar, parallel transmission paths 182 and 184 as well as, a fourth pair of ~~eoplano~~ coplanar, parallel transmission paths 186 and 188. Both third and fourth pairs of ~~eoplano~~ coplanar, parallel transmission paths are essentially parallel to the ground plane. The third ~~eoplano~~ coplanar, parallel transmission paths 182 and 184 interconnecting both a second read differential wire pair to a second head slider 64, and to a second disk drive read interface 204. The fourth pair of ~~eoplano~~ coplanar, parallel transmission paths 186 and 188 interconnect a second write differential wire pair to a second head slider 64, and to a second disk drive read interface 254.

Please replace the paragraph of page 9 starting at line 3 with the following:

In Figure 4B, the third head arm 154 interconnects the first pair of ~~eoplano~~ coplanar, parallel transmission paths 174 and 176 by a read differential wire pair to a head slider 66, and to a disk drive read interface 206. The head arm 150 interconnects the second pair of ~~eoplano~~ coplanar, parallel transmission paths by a write differential wire pair to a head slider 66 and to a disk drive write interface 256.